

### REMARKS

Claims 1-23 remain pending, wherein claims 1, 11 and 23 have been amended. Reconsideration and allowance for the above-identified application are now respectfully requested in view of the foregoing amendments and the following remarks.

Preliminarily, Applicants wish to thank the Examiner for explaining why he felt the claims as previously amended did not define a rotatable pulley wheel that is able to rotate independently of the adjustable tension applicator and pulley plates that are able to move toward or away from each other to define varying pulley space in response to the insertion of differently sized sutures into the pulley space. Applicants have endeavored to follow the implicit roadmap provided by the Examiner in order to modify the claim language to more clearly distinguish over the art of record.

Applicants have amended claims 1, 11 and 23 to explicitly state that which was inherent in the claims as previously presented, namely that the first and second pulley plates comprising the pulley wheel are able to rotate independently of the adjustable tension applicator. A rotatable pulley wheel 26 comprising a pair of pulley plates rotatably attached to an adjustable tension applicator is depicted in Figures 4-6 and described in paragraphs [0040] – [0043]. The pulley plates define a pulley space therebetween into which a looped suture can be positioned. Figures 5-6. The entire pulley wheel 26, including the pulley plates, is able to rotate independently of the adjustable tension applicator in order to equalize tension on either side of a suture looped around the pulley wheel within the pulley space defined by the pulley plates.

Goble et al. (US 5,713,897) neither teaches nor suggests a suture pulley assembly for use with an adjustable tension applicator that includes a pulley wheel having first and second pulley plates that are able to rotate independently of the adjustable tension applicator. The structures corresponding to elements 93 and 94 shown in Goble are not independently rotatable in relation the device as a whole but "are secured . . . to outer surfaces of the top and bottom braces 86a and 86b to span therebetween." Col. 8, lines 58-61. Front disk 93 is a displacement gauge that includes radial markings 96 that remain stationary to correctly register displacement indicated by rotatable pointer end 99. *See* Figures 7 and 8 (which shows disk 93 as remaining stationary while pointer 99 is rotationally displaced). The Office Action acknowledges that front and rear disks 93 and 94 of Goble et al. are not independently rotatable but states that the "wheel" defined by disks 93 and 94 "is capable of being rotated, or is rotatable, since any portion of the device is capable of being picked up by a user and spun about an axis." Office Action, p. 8. The Office

Action therefore implies that claiming a wheel that *is* independently rotatable (*i.e.*, that does not require spinning the entire device about an axis) *would* distinguish over Goble et al. Applicants have therefore followed this implicit roadmap provided by the Office Action and claimed this very aspect. For this reason alone, Applicants submit that the claims as amended are neither anticipated by nor obvious over Goble et al., either taken alone or in combination with any other art of record.

Applicants have further amended claims 1, 11 and 23 to recite that which was inherent in the claims as previously presented, namely that the first and second pulley plates have a variable distance therebetween which defines a variable pulley space for accepting therein at least one looped suture. A biasing spring urges at least one pulley plate toward the other in the absence of a spreading force (*e.g.*, as may be exerted by a looped suture placed in the pulley space between the pulley plates). This allows the pulley space defined by said distance between said first and second pulley plates to selectively increase or decrease in cross-sectional width as the distance between the pulley plates increases or decreases in response to the insertion of differently sized sutures into the pulley space. This concept is described at paragraph [0044] of the application, which teaches that the pulley plates are "oppositely biased" and therefore "able to expand and then contract depending on the spreading force of the suture strand and any suture knots." Thus, the "pulley space" defined by the pulley plates expands and contracts as the distance between the pulley plates increases or decreases in response to inserting differently sized sutures into the pulley space.

Goble et al. neither teaches nor suggests a suture pulley assembly for use with an adjustable tension applicator that includes a pulley wheel having first and second pulley plates and biasing means for urging at least one pulley plate toward the other so as to permit the distance between the pulley wheels to increase or decrease in response to inserting differently sized sutures into the pulley space. Disks 93 and 94 of the Goble et al. device are "secured" to top and bottom braces 86a and 86b and therefore remain in a fixed spaced-apart orientation with a predefined distance therebetween that cannot change in response to insertion of differently sized sutures into the pulley space. The Office Action implicitly acknowledges that the distance between plates 93 and 94 cannot vary by instead referring to some sort of relative movement between "plate 93" and "wheel 97" when a suture is placed "between plate 93 and wheel 97". Office Action, pp. 9-10. Whatever movement may occur as a result of "[i]nserting an object, such as a suture, between plate 93 and wheel 97" as stated at the top of page 10 of the Office

Action is irrelevant to the requirement of the claims that the *distance* between the first and second pulley plates is able to increase or decrease in response to inserting sutures of varying size within the pulley space defined by the *distance* between the pulley plates.

Moreover, it is not even alleged that pinion gear 97 of Goble et al. is a "pulley plate" but rather elements 93 and 94. Moreover, there is nothing in Goble et al. to suggest that the *distance* between element 93 and pinion gear 97 is able to increase or decrease. Instead, pinion gear 97 simply rotates within the space between elements 93 and 94 in response to different tensile loads that are applied by the tensioning device (*i.e.*, "pinion gear 97 is connected to a pointer body 98 having a pointer end 99 that is to travel around the disk, passing over the markings 96, as shown in FIGS. 7 and 8"; col. 9, lines 3-5). In short, the *distance* between elements 93 and 94 does not change in response to placing an object in the space between them, nor does the *distance* between element 93 and pinion gear 97 change in response to placing an object in the space between them. For this additional reason, Applicants submit that the claims as amended are neither anticipated by nor obvious over Goble et al., either taken alone or in combination with any other art of record.

Finally, the claimed "biasing means" of claim 1 and "spring" of claims 11 and 23 have specific structural and functional relationships relative to the pulley plates that are neither taught nor suggested in Goble et al. (*i.e.*, they are positioned relative to the pulley plates so as to bias at least one of the pulley plates toward the other pulley plate). In this way, the biasing means or spring urge the pulley plates to move together in the absence of a spreading force but allow them to move apart in response to a spreading force. No such biasing means or spring exists in Goble et al. since the disks 93 and 94 are rigidly "secured" in a fixed spatial relationship relative to each other. The "coil spring 100" shown in Figure 7 and described at col. 9, lines 16-22 of Goble does not apply a biasing force that urges one or both of disks 93 and 94 to move toward each other in order to reduce the distance therebetween in the absence of a spreading force. Rather, the coil spring 100 applies a *rotational* biasing force to pinion gear 97 that opposes rotational movement by the pinion gear 97 relative to disks 93 and 94. *See* Figures 7 and 8 (which shows disk 93 as remaining stationary while spring 100 is elongated as pointer 99 is rotationally displaced). "The coil spring 100 is to be stretched along track 101 when the pinion gear 97 is turned, as shown in FIG. 8, and will return to a relaxed state, as shown in FIG. 7, when the threaded end 90 of straight rod 89 is turned out of a patient's patella 102, as illustrated in FIG. 8." Col. 9, lines 16-22. Thus, the coil spring 100 of Goble et al. lacks the required

structural and functional relationships relative to first and second pulley wheels as recited in claims 1, 11 and 23 as amended. For yet this additional reason, Applicants submit that the claims as amended are neither anticipated by nor obvious over Goble et al., either taken alone or in combination with any other art of record.

Lewis et al. (US 4,950,271) was only cited on the grounds it teaches two independently adjustable tension applicators. Lewis et al. was not cited as teaching anything in relation to the specific features of the claimed suture pulley assembly. In fact, Lewis et al. neither teaches nor suggests a suture pulley assembly in combination with an adjustable tensioning apparatus having the combination of features recited in the claims as now presented, either alone or in combination with any other prior art of record.

For any of the foregoing reasons, the claims as now presented are neither anticipated by nor obvious over Goble et al., Lewis et al. and any combination thereof. In the event the Examiner finds any remaining impediment to a prompt allowance of this application that may be clarified through a telephone interview or which may be overcome by examiner amendment, the Examiner is requested to contact the undersigned attorney.

Dated this 12<sup>th</sup> day of January 2007.

Respectfully submitted,



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